Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A radiation detector for detecting incident radiation according to a ~~defined~~ predetermined spectral sensitivity distribution having a sensitivity maximum at a ~~defined~~ predetermined wavelength λ_0, said radiation detector comprising at least one semiconductor chip and at least one optical filter ~~disposed after said semiconductor chip~~, wherein

~~said~~ the at least one semiconductor chip ~~contains~~ comprises at least one III-V semiconductor material; and

~~said~~ the at least one optical filter is disposed outside the at least one semiconductor chip, and the at least one optical filter is configured to receive the incident radiation, to absorb a portion of the incident ~~absorbs~~ radiation ~~of~~ having a wavelength that is greater than the wavelength λ_0 of the sensitivity maximum[[.]], and to transmit filtered radiation to the at least one semiconductor chip.

2. (Currently Amended) The radiation detector ~~as in~~ of claim 1, wherein ~~said defined~~ the predetermined spectral sensitivity distribution is ~~that~~ a standard sensitivity distribution of ~~the~~ a human eye.

3. (Currently Amended) A radiation detector comprising at least one semiconductor chip and operative to detect incident radiation according to ~~the~~ a standard spectral sensitivity distribution of ~~the~~ a human eye, wherein ~~said~~ the at least one semiconductor chip ~~contains~~ comprises at least one III-V semiconductor material.

4. (Currently Amended) The radiation detector ~~as in~~ of claim 3, ~~wherein said radiation detector comprises~~ further comprising at least one optical filter that is disposed outside the at least one semiconductor chip, ~~disposed after said semiconductor chip, and said~~ wherein the at least one optical filter is configured to receive the incident radiation, to absorb a portion of the incident ~~absorbs~~ radiation ~~of~~ having a wavelength that is greater than ~~the~~ a wavelength λ_0' of ~~the~~ a sensitivity maximum of the human eye[[.]], and to transmit filtered radiation to the at least one semiconductor chip.

5. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~said~~ the at least one semiconductor chip is an LED chip.

6. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~the~~ a sensitivity distribution of ~~said~~ the at least one semiconductor chip exhibits at least one maximum at a wavelength λ_1, and wherein a difference between λ_1 and λ_0' is ~~said wavelength differing by no more than 50 nm, preferably no more than 15 nm, from the wavelength λ_0 or the wavelength λ_0'.~~ 50 nm or less.

7. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~said~~ the detector comprises an encapsulation that at least partially surrounds said at least one semiconductor chip.

8. (Currently Amended) The radiation detector ~~as in~~ of claim 7, wherein ~~said~~ the encapsulation ~~contains~~ comprises a resin, preferably a reaction resin.

9. (Currently Amended) The radiation detector ~~as in~~ of claim 7, further comprising at least one optical filter that is disposed outside the at least one semiconductor chip,

wherein the at least one optical filter is configured to receive the incident radiation, to absorb a portion of the incident radiation having a wavelength that is greater than a wavelength

λ_0' of a sensitivity maximum of the human eye, and to transmit filtered radiation to the at least one semiconductor chip, and

wherein ~~said~~ the at least one optical filter is disposed at least partially inside, outside and/or on ~~said~~ the encapsulation and/or the ~~encapsulant itself constitutes~~ encapsulation forms the at least one optical filter.

10. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 4, wherein ~~said~~ the at least one optical filter ~~contains~~ comprises a plurality of filter particles.

11. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~said~~ the at least one semiconductor chip comprises a filter layer.

12. (Currently Amended) The radiation detector ~~as in~~ of claim 11, wherein ~~said~~ the filter layer absorbs radiation having a wavelength ~~wavelengths~~ that ~~are~~ is smaller than ~~λ_0 or~~ λ_0'.

13. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~said~~ the radiation detector has a detector sensitivity such that at an arbitrary wavelength, ~~the~~ a difference between ~~the~~ corresponding values of ~~said~~ the detector sensitivity and ~~said~~ the standard spectral ~~defined~~ sensitivity distribution of the human eye is less than ~~40%, preferably less than 25%.~~ 40%.

14. (Currently Amended) The radiation detector ~~as in~~ of claim [[1]] 3, wherein ~~said~~ the at least one III-V semiconductor material is $In_xGa_yAl_{1-x-y}P$, ~~$In_xGa_yAl_{1-x-y}N$ or $In_xGa_yAl_{1-x-y}As$, with in each case~~ and wherein $0 \leq x \leq 1$, $0 \leq y \leq 1$ and $x + y \leq 1$.

15. (Currently Amended) The radiation detector ~~as in~~ of claim 5, wherein ~~the~~ a central emission wavelength of ~~said~~ the LED chip is in ~~the red~~ an infrared region of the spectrum.

16-21. Canceled.

22. (New) The radiation detector of claim 6, wherein the difference between λ_1 and λ_0' is 15 nm or less.

23. (New) The radiation detector of claim 11, wherein the filter layer extends over an entire face of the at least one semiconductor chip.

24. (New) The radiation detector of claim 13, wherein the difference between corresponding values of the detector sensitivity and the standard spectral sensitivity distribution of the human eye is less than 25%.

25. (New) The radiation detector of claim 3, wherein the radiation detector is configured for use as an environmental light sensor.

26. (New) The radiation detector of claim 1, wherein the at least one semiconductor chip is an LED chip.

27. (New) The radiation detector of claim 1, wherein a sensitivity distribution of the at least one semiconductor chip exhibits at least one maximum at a wavelength λ_1, and wherein a difference between λ_1 and λ_0 is 50 nm or less.

28. (New) The radiation detector of claim 27, wherein the difference between λ_1 and λ_0 is 15 nm or less.

29. (New) The radiation detector of claim 1, wherein the at least one semiconductor chip comprises a filter layer.

30. (New) The radiation detector of claim 29, wherein the filter layer absorbs radiation having a wavelength that is smaller than λ_0.

31. (New) The radiation detector of claim 1, wherein the at least one III-V semiconductor material is $In_xGa_yAl_{1-x-y}P$, $In_xGa_yAl_{1-x-y}N$, or $In_xGa_yAl_{1-x-y}As$, and wherein $0 \leq x \leq 1$, $0 \leq y \leq 1$ and $x + y \leq 1$ for the at least one semiconductor material.

32. (New) A radiation detector for detecting incident radiation according to a predetermined spectral sensitivity distribution having a sensitivity maximum at a predetermined wavelength λ_0, the detector comprising:

at least one semiconductor chip comprising a filter layer and at least one III-V semiconductor material; and

at least one optical filter disposed outside the at least one semiconductor chip,

wherein the at least one optical filter is configured to receive the incident radiation, to absorb a portion of the incident radiation having a wavelength that is greater than the wavelength λ_0 of the sensitivity maximum, and to transmit filtered radiation to the at least one semiconductor chip.